



```
000000  TTTTTTTTTT SSSSSSSS CCCCCCCC CCCCCCCC BBBB88888 DDDDDDDD AAAAAA TTTTTTTTTT
000000  TTTTTTTTTT SSSSSSSS CCCCCCCC CCCCCCCC BBBB88888 DDDDDDDD AAAAAA TTTTTTTTTT
00      TT      SS      CC      CC      BB      DD      AA      TT
00      TT      SS      CC      CC      BB      DD      AA      TT
00      TT      SS      CC      CC      BB      DD      AA      TT
00      TT      SS      CC      CC      BB      DD      AA      TT
00      TT      SS      CC      CC      BB      DD      AA      TT
00      TT      SS      CC      CC      BB      DD      AA      TT
00      TT      SS      CC      CC      BB      DD      AA      TT
00      TT      SS      CC      CC      BB      DD      AA      TT
00      TT      SS      CC      CC      BB      DD      AA      TT
000000  TT      SSSSSSS CCCCCCCC CCCCCCCC BBBB88888 DDDDDDDD AAAAAA TTTTTTTTTT
000000  TT      SSSSSSS CCCCCCCC CCCCCCCC BBBB88888 DDDDDDDD AAAAAA TTTTTTTTTT

LL      IIIIIII SSSSSSSS
LL      IIIIIII SSSSSSSS
LL      II      SS
LL      II      SS
LL      II      SS
LL      II      SS
LL      II      SSSSSS
LL      II      SSSSSS
LL      II      SS
LL      II      SS
LL      II      SS
LL      II      SS
LLLLLLLLLL IIIIIII SSSSSSSS
LLLLLLLLLL IIIIIII SSSSSSSS
```

```
1 0001 0 MODULE OTSS$CCB_DATA (
2 0002 0 IDENT = '1-002'
3 0003 0 ) =
4 0004 1 BEGIN
5 0005 1
6 0006 1 *****
7 0007 1 *
8 0008 1 * COPYRIGHT (c) 1978, 1980, 1982, 1984 BY
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25 0025 1 *
26 0026 1 *
27 0027 1 *****
28 0028 1
29 0029 1 ++
30 0030 1 FACILITY: language support library
31 0031 1
32 0032 1 ABSTRACT:
33 0033 1
34 0034 1 This module holds the OWN storage for manipulating
35 0035 1 the CCB (the LUB/ISB/RAB). The data in this module
36 0036 1 is referenced by OTSS$CCB and FOR$CCB.
37 0037 1
38 0038 1 ENVIRONMENT: User mode, AST level or not or mixed
39 0039 1
40 0040 1 AUTHOR: John Sauter, 16-AUG-1979
41 0041 1
42 0042 1 MODIFIED BY:
43 0043 1
44 0044 1 1-001 - Original, from OTSS$CCB version 1-047. JBS 16-AUG-1979
45 0045 1 1-002 - Initialize OTSS$L_CUR_LUN and OTSS$L_LVL_CTR at link time,
46 0046 1 since FORTRAN doesn't call any initialization code.
47 0047 1 JBS 14-JAN-1980
48 0048 1 --
49 0049 1
50 0050 1 !<BLF/PAGE>
```



```
52 0051 1 |
53 0052 1 | SWITCHES:
54 0053 1 |
55 0054 1 |
56 0055 1 | SWITCHES ADDRESSING_MODE (EXTERNAL = GENERAL, NONEXTERNAL = WORD_RELATIVE);
57 0056 1 |
58 0057 1 |
59 0058 1 | LINKAGES:
60 0059 1 |
61 0060 1 |     NONE
62 0061 1 |
63 0062 1 | TABLE OF CONTENTS:
64 0063 1 |
65 0064 1 |     NONE
66 0065 1 |
67 0066 1 | INCLUDE FILES:
68 0067 1 |
69 0068 1 |
70 0069 1 | REQUIRE 'RTLML:OTISISB';           ! get length of ISB
71 0237 1 |
72 0238 1 | REQUIRE 'RTLML:OTSLUB';           ! get length of LUB
73 0378 1 |
74 0379 1 | REQUIRE 'RTLIN:RTLPSECT';         ! Define DECLARE_PSECTs macro
75 0474 1 |
76 0475 1 | REQUIRE 'RTLIN:OTSCCBREQ';        ! Define interface to OTSS$PUSH_CCB
77 0573 1 |
78 0574 1 | LIBRARY 'RTLSTARLE';              ! STARLET library for macros and symbols
79 0575 1 |
80 0576 1 |
81 0577 1 | MACROS:
82 0578 1 |
83 0579 1 |     NONE
84 0580 1 |
85 0581 1 | EQUATED SYMBOLS:
86 0582 1 |
87 0583 1 |     NONE
88 0584 1 |
89 0585 1 | PSECT DECLARATIONS:
90 0586 1 |
91 0587 1 | DECLARE_PSECTS (OTS);              ! declare PSECTs for OTS$ facility
92 0588 1 |
93 0589 1 | GLOBAL STORAGE:
94 0590 1 |
95 0591 1 |
96 0592 1 | GLOBAL
97 0593 1 |     OTSS$A_CUR_LUB : INITIAL (0),  ! Contains the address of the current I/O
98 0594 1 | +
99 0595 1 | Bit 0 of the following longword is zero if the queue headers have not
100 0596 1 | yet been set up.
101 0597 1 | -
102 0598 1 |     OTSS$V_CCB_INIT : VOLATILE INITIAL (0),
103 0599 1 | +
104 0600 1 | The following quadwords constitute queue headers, one for each LUN.
105 0601 1 | Each queue will normally either be empty (meaning that no LUB is
106 0602 1 | allocated) or contain one item, the LUB. The field LUB$Q_QUEUE is
107 0603 1 | used for the queue linkage. Under certain circumstances a second
108 0604 1 | LUB may be placed in the queue and then quickly removed.
```

```
109 0605 1 :-  
110 0606 1 OTSS$AA_LUB_TAB : VOLATILE OTSS$LUB_TAB ST !  
111 0607 1 [-LUB$K_ILUN_MIN + LUB$K_LUN_MAX + 1, LUB$K_ILUN_MIN],  
112 0608 1 +  
113 0609 1 Each bit of the following BITVECTOR corresponds to a LUN. The bit is  
114 0610 1 set if there is any I/O activity outstanding for the LUN. The bit  
115 0611 1 must be kept here rather than in the LUB because there can be I/O  
116 0612 1 activity outstanding even before the LUB is allocated.  
117 0613 1 -  
118 0614 1 OTSS$V_IOINPROG : VOLATILE BITVECTOR !  
119 0615 1 [(LUB$K_ILUN_MIN + LUB$K_LUN_MAX + %BPVAL)/%BPVAL]*%BPVAL],  
120 0616 1 +  
121 0617 1 The following cell contains the logical unit number of the current  
122 0618 1 unit. It is used in place of OTSS$AA_CUR_LUB when pushing to avoid  
123 0619 1 a problem with removing the LUB from the LUB table prior to  
124 0620 1 deallocating it. When it contains a value one greater than the max  
125 0621 1 permitted value then there is no current LUB.  
126 0622 1 -  
127 0623 1 OTSS$L_CUR_LUN : INITIAL (LUB$K_LUN_MAX + 1),  
128 0624 1 +  
129 0625 1 The following cell acts as a level counter. For efficiency the  
130 0626 1 LUN pushing and popping routines are not called at the top level  
131 0627 1 because, first, they would have nothing useful to do and, second,  
132 0628 1 the top level is used much more frequently than the lower levels.  
133 0629 1 -  
134 0630 1 OTSS$L_LVL_CTR : INITIAL (-1),  
135 0631 1 +  
136 0632 1 The following vector of bits is used to record ownership of each LUN.  
137 0633 1 If the bit corresponding to a particular language is set, the language  
138 0634 1 owns the LUN.  
139 0635 1 -  
140 0636 1 OTSS$V_LUN_OWN : BLOCKVECTOR [-LUB$K_ILUN_MIN + LUB$K_LUN_MAX + 1, !  
141 0637 1 ((LUB$K_LANG_MAX + %BPUNIT)/%BPUNIT), BYTE];  
142 0638 1  
143 0639 1  
144 0640 1 EXTERNAL REFERENCES:  
145 0641 1  
146 0642 1 NONE  
147 0643 1  
148 0644 1 END ! End of module OTSS$CCB_DATA  
149 0645 1  
150 0646 0 ELUDOM
```

```
.TITLE OTSS$CCB_DATA  
.IDENT \1-002\  
.PSECT _OTSS$DATA,NOEXE, PIC,2
```

```
00000000 00000 OTSS$A_CUR_LUB::  
          .LONG 0  
00000000 00004 OTSS$V_CCB_INIT::  
          .LONG 0  
          00008 OTSS$AA_LUB_TAB::  
          .BLKB 1024  
          00408 OTSS$V_IOINPROG::  
          .BLKB 16
```

OTSS\$CCB\_DATA  
1-002

6 9  
16-Sep-1984 01:24:18  
14-Sep-1984 12:39:38

VAX-11 Bliss-32 V4.0-742  
[LIBRTL.SRC]OTSCCB DAT.B32;1

Page 4  
(2)

00000078 00418 OTSS\$L\_CUR LUN::  
                                  .LONG 120  
FFFFFFFF 0041C OTSS\$L\_LVL CTR::  
                                  .LONG -1  
00420 OTSS\$V\_LUN\_OWN::  
                                  .BCKB 128

PSECT SUMMARY

```

:
:      Name                Bytes                Attributes
:
:  _OTSS$DATA              1184  NOVEC, WRT, RD ,NOEXE,NOSHR, LCL, REL, CON, PIC,ALIGN(2)
:

```

Library Statistics

```

:
:      File                ----- Symbols ----- Pages Processing
:                        Total   Loaded   Percent   Mapped   Time
:
:  _$255$DUA28:[SYSLIB]STARLET.L32;1    9776         0         0       581    00:00.8
:

```

COMMAND QUALIFIERS

```

:
:  BLISS/CHECK=(FIELD,INITIAL,OPTIMIZE)/NOTRACE/LIS=LIS$:OTSCCB DAT/OBJ=OBJ$:OTSCCB DAT MSRC$:OTSCCB DAT/UPDATE=(ENH$:OTSCCB DAT
:

```

```

: Size:          0 code + 1184 data bytes
: Run Time:      00:04.3
: Elapsed Time:  00:23.7
: Lines/CPU Min: 9120
: Lexemes/CPU-Min: 63190
: Memory Used:   86 pages
: Compilation Complete

```



0211 AH-BT13A-SE  
VAX/VMS V4.0

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